Traffic Signal Timing

Traffic signals assign the right-of-way to various traffic movements for different time intervals depending on traffic flow levels. Traffic signals use detectors located in the roadway or video detection to assign the right-of-way based on traffic demand. Traffic signals attempt to assign most of the available green time to the heaviest traffic movement.

How do I Report a Traffic Signal Concern?

Each year the City receives many inquiries concerning the operation of traffic signals. If you have a traffic signal question or concern, please contact:

- Public Works Department at (949) 461-3480, or
- visit the City website at www.lakeforestca.gov and access the “Ask Lake Forest” icon. Simply enter a Traffic Signal request. Ask Lake Forest is available 24 Hrs. a day

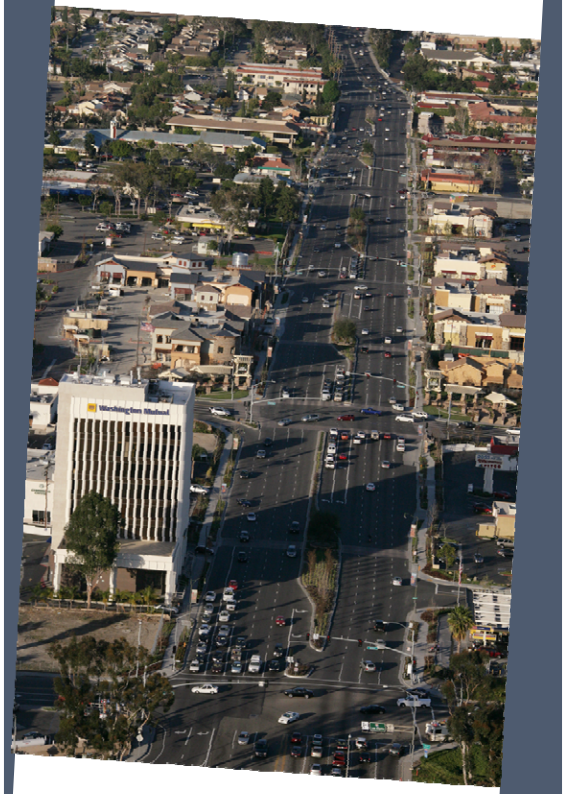
Ask Lake Forest

City of Lake Forest
25550 Commecentre Dr.
Lake Forest, CA 92630
www.lakeforestca.gov

Public Works Department: 949-461-3480
Traffic Management
Doug Anderson, Traffic Manager
doanderson@lakeforestca.gov

25550 Commercentre Dr.
Lake Forest, CA 92630
(949) 461-3400

TRAFFIC SIGNALS



Traffic Signals

The primary function of any traffic signal is to assign right-of-way to conflicting movements of traffic at an intersection. Traffic signals are not a “cure-all” for traffic problems. The primary goal is to attain the safest and most efficient overall traffic flow possible. Here are some advantages of a traffic signal:

- Offers maximum control at intersections and provides orderly movement of cars.
- When properly timed, a traffic signal increases the traffic handling capacity of an intersection.
- When installed under conditions that justify its use, a signal is a valuable device for improving the safety and efficiency of both pedestrian and vehicular traffic. Unjustified traffic signals can cause rear-end collisions, excessive delay, disobedience of signals, and diversion of traffic to residential streets.

Why are Traffic Signals Needed?

As traffic volumes increase beyond the capability of lesser controls such as a four-way stop, it may be necessary to install a traffic signal. Before installing a traffic signal at an intersection, traffic engineers evaluate accepted warrants for traffic signals, which are found in the State of California’s Manual on Uniform Traffic Control Devices.

Special Signal Functions

Traffic Signal Preemption

The transfer of a signal control to a special signal operation is called preemption. There are three common types of preemption: Railroad Crossings, Emergency Vehicle, and Transit Vehicle preemption.

Flashing Red

According to the California Vehicle Code, when a red lens is illuminated with rapid intermittent red flashes, a driver shall stop before entering the crosswalk on the near side of an intersection. The driver may proceed subject to the rules applicable to making a 4-way stop controlled intersection.

Flashing Yellow

When a yellow lens is illuminated with rapid intermittent yellow flashes, a driver may proceed through the intersection or past the signal only with caution.

Dark Signals

When a traffic signal has gone dark, due to a power failure it is considered to function the same way as a 4-way stop controlled intersection and a driver must stop before entering the intersection.

What Traffic Signal Equipment is Commonly Used?

Traffic signals are more costly than is commonly realized, even though they represent a sound public investment when justified. The major components associated with the installation of a traffic signal are as follows:

- Traffic Signal Controller—The controller is the signal’s brain. It consists of electrical or computer controls that operate the selection and timing of traffic movements in accordance with the varying demands of traffic as registered with the controller unit by detectors.
- Signal Heads—Signal faces are part of a signal head provided for controlling traffic in a single direction and consisting of one or more signal sections. These usually include solid or arrow lights in red, yellow and green lights.
- Vehicle Detectors—Detectors are devices for indicating the passage or presence of vehicles. These devices consist of wire loops placed in the pavement at intersections which are activated by the change of electrical inductance caused by a vehicle passing over, or standing over the wire loop. The City also uses video detection via cameras installed on the traffic signal arms.